In the Claims:

Please amend the claims as follows:

Please cancel claims 2-16, 18, and 20-25 without prejudice.

Please add new claims 26 to 274 as follows:

26. (New) A method of treating an immune system disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide having said amino acid sequence modulates lymphocyte proliferation.

27. (New) The method of claim 26 wherein the protein comprises amino acid sequence (a).

28. (New) The method of claim 26 wherein the protein comprises amino acid sequence (b).

29. (New) The method of claim 26 wherein the protein comprises amino acid sequence (c).

30. (New) The method of claim 26 wherein the protein also comprises a heterologous amino acid sequence.

31. (New) The method of claim 30 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

32. (New) The method of claim 26 wherein said protein is labeled.

33. (New) The method of claim 32 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

34. (New) The method of claim 26 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

35. The method of claim 26 wherein the immune system disease or disorder is an inflammatory disease or disorder.

36. (New) The method of claim 26 wherein the immune system disease or disorder is a leukemia.

37. (New) The method of claim 26 wherein the immune system disease or disorder is a tumor.

38. (New) The method of claim 37 wherein the tumor is metastatic.

39. (New) A method of treating an immune system disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide having said first amino acid sequence modulates lymphocyte proliferation.

40. (New) The method of claim 39 wherein the protein comprises amino acid sequence (a).

41. (New) The method of claim 39 wherein the protein comprises amino acid sequence (b).

42. (New) The method of claim 39 wherein the protein comprises amino acid sequence (c).

43. (New) The method of claim 39 wherein the protein also comprises a heterologous amino acid sequence.

44. (New) The method of claim 43 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

45. (New) The method of claim 39 wherein said protein is labeled.

46. (New) The method of claim 45 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

47. (New) The method of claim 39 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

48. (New) The method of claim 39 wherein the immune system disease or disorder is an inflammatory disease or disorder.

49. (New) The method of claim 39 wherein the immune system disease or disorder is a leukemia.

50. (New) The method of claim 39 wherein the immune system disease or disorder is a tumor.

51. (New) The method of claim 50 wherein the tumor is metastatic.

52. (New) A method of treating an immune system disease or disorder comprising administering to an individual a therapeutically effective amount of a protein consisting of an amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

53. (New) The method of claim 52 wherein the protein is fused to a heterologous amino acid sequence.

54. (New) The method of claim 54 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

55. (New) The method of claim 52 wherein said protein is labeled.

56. (New) The method of claim 55 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

57. (New) The method of claim 52 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

58. (New) The method of claim 52 wherein the immune system disease or disorder is an inflammatory disease or disorder.

59. (New) The method of claim 52 wherein the immune system disease or disorder is a leukemia.

60. (New) The method of claim 52 wherein the immune system disease or disorder is a tumor.

61. (New) The method of claim 60 wherein the tumor is metastatic.

62. (New) A method of treating an autoimmune disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide having said amino acid sequence modulates lymphocyte proliferation.

63. (New) The method of claim 62 wherein the protein comprises amino acid sequence (a).

64. (New) The method of claim 62 wherein the protein comprises amino acid sequence (b).

65. (New) The method of claim 62 wherein the protein comprises amino acid sequence (c).

66. (New) The method of claim 62 wherein the protein also comprises a heterologous amino acid sequence.

67. (New) The method of claim 66 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

68. (New) The method of claim 62 wherein said protein is labeled.

69. (New) The method of claim 68 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

70. (New) The method of claim 62 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

71. (New) The method of claim 62 wherein the autoimmune disease or disorder is rheumatoid arthritis.

72. (New) A method of treating an autoimmune disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide having said first amino acid sequence modulates lymphocyte proliferation.

73. (New) The method of claim 72 wherein the protein comprises amino acid sequence (a).

74. (New) The method of claim 72 wherein the protein comprises amino acid sequence (b).

75. (New) The method of claim 72 wherein the protein comprises amino acid sequence (c).

76. (New) The method of claim 72 wherein the protein also comprises a heterologous amino acid sequence.

77. (New) The method of claim 76 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

78. (New) The method of claim 72 wherein said protein is labeled.

79. (New) The method of claim 78 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

80. (New) The method of claim 72 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

81. (New) The method of claim 72 wherein the autoimmune disease or disorder is rheumatoid arthritis.

82. (New) A method of treating an autoimmune system disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein consisting of an amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

83. (New) The method of claim 82 wherein the protein is fused to a heterologous amino acid sequence.

84. (New) The method of claim 83 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

85. (New) The method of claim 82 wherein said protein is labeled.

86. (New) The method of claim 85 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

87. (New) The method of claim 82 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

88. (New) The method of claim 82 wherein the autoimmune disease or disorder is rheumatoid arthritis.

89. (New) A method of treating an immunodeficiency comprising administering to an individual, a therapeutically effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide having said amino acid sequence modulates lymphocyte proliferation.

90. (New) The method of claim 89 wherein the protein comprises amino acid sequence (a).

91. (New) The method of claim 89 wherein the protein comprises amino acid sequence (b).

92. (New) The method of claim 89 wherein the protein comprises amino acid sequence (c).

93. (New) The method of claim 89 wherein the protein also comprises a heterologous amino acid sequence.

94. (New) The method of claim 93 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

95. (New) The method of claim 89 wherein said protein is labeled.

96. (New) The method of claim 95 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

97. (New) The method of claim 89 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

98. (New) A method of treating an immunodeficiency comprising administering to an individual, a therapeutically effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

(d) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(e) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and

(f) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide having said first amino acid sequence modulates lymphocyte proliferation.

99. (New) The method of claim 98 wherein the protein comprises amino acid sequence (a).

100. (New) The method of claim 98 wherein the protein comprises amino acid sequence (b).

101. (New) The method of claim 98 wherein the protein comprises amino acid sequence (c).

102. (New) The method of claim 98 wherein the protein also comprises a heterologous amino acid sequence.

103. (New) The method of claim 102 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

104. (New) The method of claim 98 wherein said protein is labeled.

105. (New) The method of claim 104 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

106. (New) The method of claim 98 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

107. (New) A method of treating an immunodeficiency comprising administering to an individual, a therapeutically effective amount of a protein consisting of the amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

108. (New) The method of claim 107 wherein the protein is fused to a heterologous amino acid sequence.

109. (New) The method of claim 108 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

110. (New) The method of claim 98 wherein said protein is labeled.

111. (New) The method of claim 110 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

112. (New) The method of claim 98 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

113. (New) A method of treating an immune system disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein comprising the amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

114. (New) The method of claim 113 wherein the protein also comprises a heterologous amino acid sequence.

115. (New) The method of claim 114 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

116. (New) The method of claim 113 wherein said protein is labeled.

117. (New) The method of claim 116 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

118. (New) The method of claim 113 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

119. (New) The method of claim 113 wherein the immune system disease or disorder is an autoimmune system disease or disorder.

120. (New) The method of claim 119 wherein the autoimmune disease or disorder is rheumatoid arthritis.

121. (New) The method of claim 113 wherein the immune system disease or disorder is an immunodeficiency.

122. (New) The method of claim 113 wherein the immune system disease or disorder is an inflammatory disease or disorder.

123. (New) The method of claim 113 wherein the immune system disease or disorder is a leukemia.

124. (New) The method of claim 113 wherein the immune system disease or disorder is a tumor.

125. (New) The method of claim 124 wherein the tumor is metastatic.

126. (New) A method of treating an immune system disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein consisting of a first amino acid sequence which is 90% or more identical to a second amino acid sequence consisting of amino acid residues 134-285 of SEQ ID NO:2, wherein the polypeptide having said first amino acid sequence modulates lymphocyte proliferation.

127. (New) The method of claim 126 wherein the protein consists of a first amino acid sequence which is 95% or more identical to said second amino acid sequence.

128. (New) The method of claim 126 wherein the protein is fused to a heterologous amino acid sequence.

129. (New) The method of claim 128 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

130. (New) The method of claim 126 wherein said protein is labeled.

131. (New) The method of claim 130 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

132. (New) The method of claim 126 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

133. (New) The method of claim 126 wherein the immune system disease or disorder is an autoimmune system disease or disorder.

134. (New) The method of claim 133 wherein the autoimmune disease or disorder is rheumatoid arthritis.

135. (New) The method of claim 126 wherein the immune system disease or disorder is an immunodeficiency.

136. (New) The method of claim 126 wherein the immune system disease or disorder is an inflammatory disease or disorder.

137. (New) The method of claim 126 wherein the immune system disease or disorder is a leukemia.

138. (New) The method of claim 126 wherein the immune system disease or disorder is a tumor.

139. (New) The method of claim 138 wherein the tumor is metastatic.

140. (New) A method of treating an immune system disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein comprising a first amino acid sequence which is 90% or more identical to a second amino acid sequence consisting of amino acid residues 134-285 of SEQ ID NO:2, wherein the polypeptide having said first amino acid sequence modulates lymphocyte proliferation.

141. (New) The method of claim 140 wherein the protein comprises a first amino acid sequence which is 95% or more identical to said second amino acid sequence.

142. (New) The method of claim 141 wherein the protein also comprises a heterologous amino acid sequence.

143. (New) The method of claim 142 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

144. (New) The method of claim 126 wherein said protein is labeled.

145. (New) The method of claim 144 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

146. (New) The method of claim 126 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

147. (New) The method of claim 126 wherein the immune system disease or disorder is an autoimmune system disease or disorder.

148. (New) The method of claim 147 wherein the autoimmune disease or disorder is rheumatoid arthritis.

149. (New) The method of claim 126 wherein the immune system disease or disorder is an immunodeficiency.

150. (New) The method of claim 126 wherein the immune system disease or disorder is an inflammatory disease or disorder.

151. (New) The method of claim 126 wherein the immune system disease or disorder is a leukemia.

152. (New) The method of claim 126 wherein the immune system disease or disorder is a tumor.

153. (New) The method of claim 152 wherein the tumor is metastatic.

154. (New) A method of treating an immune system disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of an amino-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said amino-terminal deletion protein mutant excludes up to 190 amino acid residues from the amino terminus of said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768;

(b) the amino acid sequence of a carboxy-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said carboxy-terminal deletion protein mutant excludes up to 11 amino acid residues from the carboxy terminus of said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768; and

(c) the amino acid sequence of an amino- and carboxy-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said amino- and carboxy-terminal deletion protein mutant excludes up to 190 amino acid residues from the amino terminus and up to 11 amino acid residues from the carboxy terminus of said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768;

wherein the polypeptide having said amino acid sequence modulates lymphocyte proliferation.

155. (New) The method of claim 154 wherein the protein comprises amino acid sequence (a).

156. (New) The method of claim 154 wherein the protein comprises amino acid sequence (b).

157. (New) The method of claim 154 wherein the protein comprises amino acid sequence (c).

158. (New) The method of claim 154 wherein the protein also comprises a heterologous amino acid sequence.

159. (New) The method of claim 158 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

160. (New) The method of claim 154 wherein said protein is labeled.

161. (New) The method of claim 160 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

162. (New) The method of claim 154 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

163. (New) The method of claim 154 wherein the immune system disease or disorder is an autoimmune system disease or disorder.

164. (New) The method of claim 163 wherein the autoimmune disease or disorder is rheumatoid arthritis.

165. (New) The method of claim 154 wherein the immune system disease or disorder is an immunodeficiency.

166. (New) The method of claim 154 wherein the immune system disease or disorder is an inflammatory disease or disorder.

167. (New) The method of claim 154 wherein the immune system disease or disorder is a leukemia.

168. (New) The method of claim 154 wherein the immune system disease or disorder is a tumor.

169. (New) The method of claim 168 wherein the tumor is metastatic.

170. (New) A method of treating an immune system disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of an amino-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said amino-terminal deletion protein mutant excludes up to 190 amino acid residues from the amino terminus of said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768;

(b) the amino acid sequence of a carboxy-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said carboxy-terminal deletion protein mutant excludes up to 11 amino acid residues from the carboxy terminus of said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768; and

(c) the amino acid sequence of an amino- and carboxy-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said amino- and carboxy-terminal deletion protein mutant excludes up to 190 amino acid residues from the amino terminus and up to 11 amino acid residues from the carboxy terminus of said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768;

wherein the polypeptide having said first amino acid sequence modulates lymphocyte proliferation.

171. (New) The method of claim 170 wherein the protein comprises amino acid sequence (a).

172. (New) The method of claim 170 wherein the protein comprises amino acid sequence (b).

173. (New) The method of claim 170 wherein the protein comprises amino acid sequence (c).

174. (New) The method of claim 170 wherein the protein also comprises a heterologous amino acid sequence.

175. (New) The method of claim 174 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

176. (New) The method of claim 170 wherein said protein is labeled.

177. (New) The method of claim 176 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

178. (New) The method of claim 170 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

179. (New) The method of claim 170 wherein the immune system disease or disorder is an autoimmune system disease or disorder.

180. (New) The method of claim 179 wherein the autoimmune disease or disorder is rheumatoid arthritis.

181. (New) The method of claim 170 wherein the immune system disease or disorder is an immunodeficiency.

182. (New) The method of claim 170 wherein the immune system disease or disorder is an inflammatory disease or disorder.

183. (New) The method of claim 170 wherein the immune system disease or disorder is a leukemia.

184. (New) The method of claim 170 wherein the immune system disease or disorder is a tumor.

185. (New) The method of claim 184 wherein the tumor is metastatic.

186. (New) A method of treating an immune system disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein consisting of a first amino acid sequence that is 95% or more identical to a second amino acid sequence consisting of the amino acid sequence of an amino-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said amino-terminal deletion protein mutant excludes up to 133 amino acid residues from the amino terminus of said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, and wherein the polypeptide having said first amino acid sequence modulates lymphocyte proliferation.

187. (New) The method of claim 26 wherein the protein is fused to a heterologous amino acid sequence.

188. (New) The method of claim 30 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

189. (New) The method of claim 26 wherein said protein is labeled.

190. (New) The method of claim 32 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

191. (New) The method of claim 26 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

192. (New) The method of claim 26 wherein the immune system disease or disorder is an autoimmune system disease or disorder.

193. (New) The method of claim 179 wherein the autoimmune disease or disorder is rheumatoid arthritis.

194. (New) The method of claim 26 wherein the immune system disease or disorder is an immunodeficiency.

195. (New) The method of claim 26 wherein the immune system disease or disorder is an inflammatory disease or disorder.

196. (New) The method of claim 26 wherein the immune system disease or disorder is a leukemia.

197. (New) The method of claim 26 wherein the immune system disease or disorder is a tumor.

198. (New) The method of claim 37 wherein the tumor is metastatic.

199. (New) A method of treating an immune system disease or disorder comprising administering to an individual, a therapeutically effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence consisting of the amino acid sequence of an amino-terminal deletion protein mutant of the full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein said amino-terminal deletion protein mutant excludes up to 133 amino acid residues from the amino terminus of said full-length protein encoded by the cDNA contained in ATCC Deposit Number 97768, wherein the polypeptide having said first amino acid sequence modulates lymphocyte proliferation.

200. (New) The method of claim 199 wherein the protein also comprises a heterologous amino acid sequence.

201. (New) The method of claim 200 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

202. (New) The method of claim 199 wherein said protein is labeled.

203. (New) The method of claim 202 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

204. (New) The method of claim 199 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

205. (New) The method of claim 199 wherein the immune system disease or disorder is an autoimmune system disease or disorder.

206. (New) The method of claim 205 wherein the autoimmune disease or disorder is rheumatoid arthritis.

207. (New) The method of claim 199 wherein the immune system disease or disorder is an immunodeficiency.

208. (New) The method of claim 199 wherein the immune system disease or disorder is an inflammatory disease or disorder.

209. (New) The method of claim 199 wherein the immune system disease or disorder is a leukemia.

210. (New) The method of claim 199 wherein the immune system disease or disorder is a tumor.

211. (New) The method of claim 210 wherein the tumor is metastatic.

212. (New) A method of stimulating leukocyte activation or proliferation comprising administering to an individual, a therapeutically effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide having said amino acid sequence modulates lymphocyte proliferation.

213. (New) The method of claim 212 wherein the protein comprises amino acid sequence (a).

214. (New) The method of claim 212 wherein the protein comprises amino acid sequence (b).

215. (New) The method of claim 212 wherein the protein comprises amino acid sequence (c).

216. (New) The method of claim 212 wherein the protein also comprises a heterologous amino acid sequence.

217. (New) The method of claim 216 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

218. (New) The method of claim 212 wherein said protein is labeled.

219. (New) The method of claim 218 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

220. (New) The method of claim 26 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

221. (New) A method of stimulating leukocyte activation or proliferation comprising administering to an individual, a therapeutically effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide having said first amino acid sequence modulates lymphocyte proliferation.

222. (New) The method of claim 221 wherein the protein comprises amino acid sequence (a).

223. (New) The method of claim 221 wherein the protein comprises amino acid sequence (b).

224. (New) The method of claim 221 wherein the protein comprises amino acid sequence (c).

225. (New) The method of claim 221 wherein the protein also comprises a heterologous amino acid sequence.

226. (New) The method of claim 226 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

227. (New) The method of claim 221 wherein said protein is labeled.

228. (New) The method of claim 227 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{111}In; and

(e) ^{99m}Tc.

229. (New) The method of claim 221 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

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230. (New) A method of stimulating leukocyte activation or proliferation comprising administering to an individual, a therapeutically effective amount of a protein consisting of an amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2.

231. (New) The method of claim 230 wherein the protein is fused to a heterologous amino acid sequence.

232. (New) The method of claim 231 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

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233. (New) The method of claim 221 wherein said protein is labeled.

234. (New) The method of claim 233 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{111}In; and

(e) ^{99m}Tc.

235. (New) The method of claim 221 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

236. (New) A method of enhancing host defenses against infection comprising administering to an individual, a therapeutically effective amount of a protein comprising an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide having said amino acid sequence modulates lymphocyte proliferation.

237. (New) The method of claim 236 wherein the protein comprises amino acid sequence (a).

238. (New) The method of claim 236 wherein the protein comprises amino acid sequence (b).

239. (New) The method of claim 236 wherein the protein comprises amino acid sequence (c).

240. (New) The method of claim 236 wherein the protein also comprises a heterologous amino acid sequence.

241. (New) The method of claim 240 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

242. (New) The method of claim 236 wherein said protein is labeled.

243. (New) The method of claim 242 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

244. (New) The method of claim 236 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

245. (New) The method of claim 236 wherein the infection is an acute infection.

246. (New) The method of claim 236 wherein the infection is a chronic infection.

247. (New) The method of claim 236 wherein the infection is a bacterial infection.

248. (New) The method of claim 236 wherein the infection is a viral infection.

249. (New) The method of claim 236 wherein the infection is a parasitic infection.

250. (New) A method of enhancing host defenses against infection comprising administering to an individual, a therapeutically effective amount of a protein comprising a first amino acid sequence that is 95% or more identical to a second amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of amino acid residues n to 285 of SEQ ID NO:2, where n is an integer in the range of 2-190;

(b) the amino acid sequence of amino acid residues 1 to m of SEQ ID NO:2, where m is an integer in the range of 274 to 284; and

(c) the amino acid sequence of amino acid residues n to m of SEQ ID NO:2, where n is an integer in the range of 2-190 and m is an integer in the range of 274-284;

wherein the polypeptide having said first amino acid sequence modulates lymphocyte proliferation.

251. (New) The method of claim 250 wherein the protein comprises amino acid sequence (a).

252. (New) The method of claim 250 wherein the protein comprises amino acid sequence (b).

253. (New) The method of claim 250 wherein the protein comprises amino acid sequence (c).

254. (New) The method of claim 250 wherein the protein also comprises a heterologous amino acid sequence.

255. (New) The method of claim 254 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

256. (New) The method of claim 250 wherein said protein is labeled.

257. (New) The method of claim 256 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

258. (New) The method of claim 250 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

259. (New) The method of claim 250 wherein the infection is an acute infection.

260. (New) The method of claim 250 wherein the infection is a chronic infection.

261. (New) The method of claim 250 wherein the infection is a bacterial infection.

262. (New) The method of claim 250 wherein the infection is a viral infection.

263. (New) The method of claim 250 wherein the infection is a parasitic infection.

264. (New) A method of enhancing host defenses against infection comprising administering to an individual, a therapeutically effective amount of a protein consisting of an amino acid sequence of amino acid residues 134-285 of SEQ ID NO:2 .

265. (New) The method of claim 264 wherein the protein is fused to a heterologous amino acid sequence.

266. (New) The method of claim 264 wherein the heterologous amino acid sequence is the amino acid sequence of an immunoglobulin Fc domain.

267. (New) The method of claim 264 wherein said protein is labeled.

268. (New) The method of claim 267 wherein said label is a radiolabel selected from the group consisting of:

(a) ^{131}I;

(b) ^{125}I;

(c) ^{121}I;

(d) ^{112}In; and

(e) ^{99m}Tc.

269. (New) The method of claim 264 wherein the protein is cytotoxic to Neutrokine-alpha receptor bearing cells.

270. (New) The method of claim 264 wherein the infection is an acute infection.

271. (New) The method of claim 264 wherein the infection is a chronic infection.

272. (New) The method of claim 264 wherein the infection is a bacterial infection.

273. (New) The method of claim 264 wherein the infection is a viral infection.

274. (New) The method of claim 264 wherein the infection is a parasitic infection.

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